Warm – up (10-15min):

1) Distribute: $-2(4x - 3)$

$-8x + 6$

2) If a = b and b = c and c is 3, what is a?

3

3) If $4x + y = 6$, what is $(4x + y) - 3)^2 - 7$?

$(6 - 3)^2 - 7$ → $3^2 - 7 = 2$

4) Solve for x algebraically, $3x + 1 = 5x - 11$.

$+11$ $+11$

$3x + 12 = 5x$

$-3x$ $-3x$

$12 = 2x$

$6 = x$

$y = 2x + 3$ —

$y = 4x - 7$ —

$13 = 13$ ✓

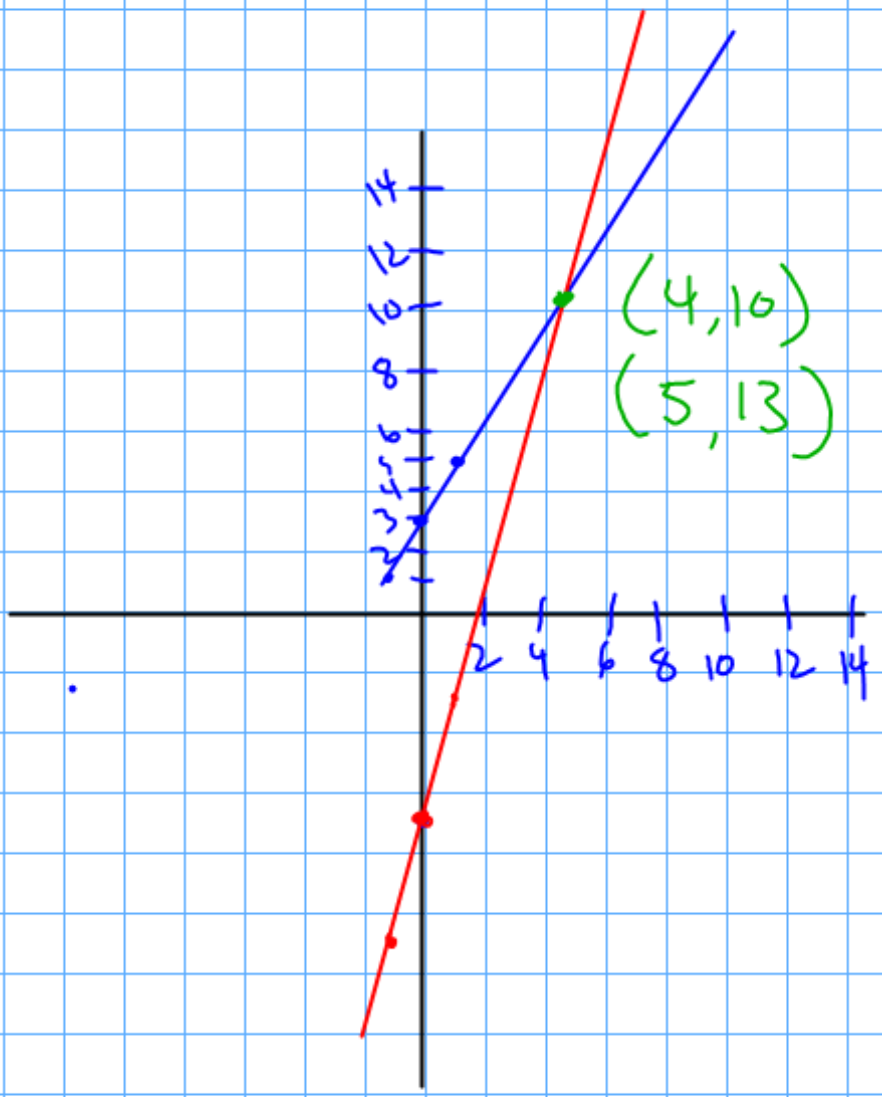
$2x + 3 = 4x - 7$

$x = 5$

$y = 2(5) + 3$

$y = 13$

$(5, 13)$



TRY:

1) $-6x+2=y$

$8x-5=y$

$-6x+2=8x-5$

$+6x \quad +6y$

$2=14x-5$

$+5 \quad +5$

$\frac{7}{14}=\frac{14x}{14}$

$x=.5$

$-6(0.5)+2=-1$

$8(0.5)-5=-1$

2) $3x+2y=5$

$y=5x-17$

$3x+2y=5$

$-3x \quad -3x$

$\frac{2y}{2}=\frac{-3x+5}{2}$

$y=-\frac{3}{2}x+2.5$

Put in calc.

$x=3$

$y=-2$

$5x-17=-\frac{3}{2}x+2.5$

$-2.5 \quad -2.5$

$5x-19.5=-\frac{3}{2}x$

$-5x \quad -5x$

$\frac{-13x}{-13}=\frac{-19.5}{-13}$

$\div -\frac{13}{2}$

$3=\frac{2}{x}$

① $y = 2x + 3$, $x = 1$, $y = 5$

$(\times 1000) \Rightarrow 1000y = 2000x + 3000$

$x = 1$, $y = 5$

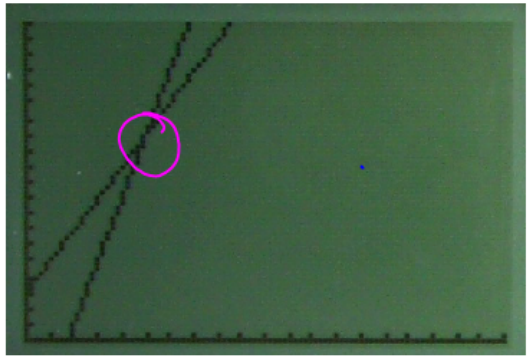
Can multiply an equation by a constant & it still produces the same result.

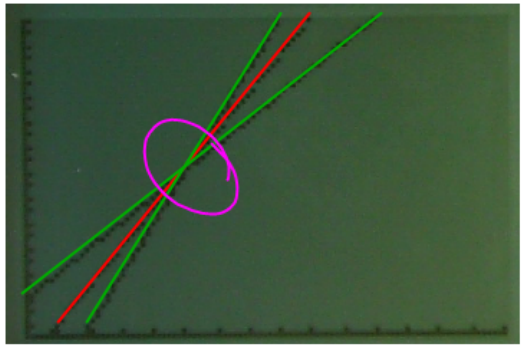
(2)

$$y = 2x + 3$$
$$+ \quad y = 4x - 7$$

$$\frac{2y}{2} = \frac{6x - 4}{2}$$

$$y = 3x - 2$$





adding 2 equation still result in the correct solution to the whole system.

$$3x + 2y = 13$$
$$5x - 2y = 11$$

$$8x = 24$$

$$x = 3$$

$$3(3) + 2y = 13$$
$$9 + 2y = 13$$
$$-9 \quad -9$$
$$2y = 4$$
$$y = 2$$

TRY:

1) $5x + 3y = 25$

$4x + 2y = 18$

Section 3.2: 15, 54-62